

EPO - Munich
40
25. Sep. 1999

F1-a

Fig-1

F1-b

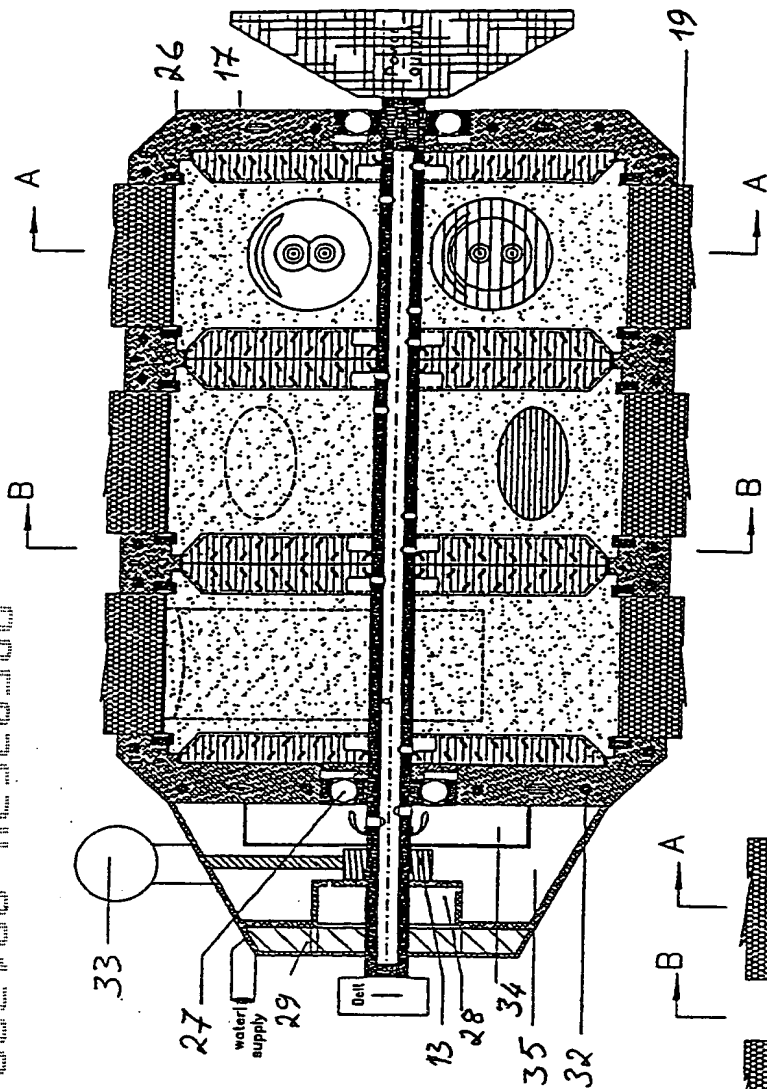
TYPICAL SHAPE - FRONT VIEW

TYPICAL SHAPE - SIDE VIEW

00ET160" 14E928560

- 2/25 -

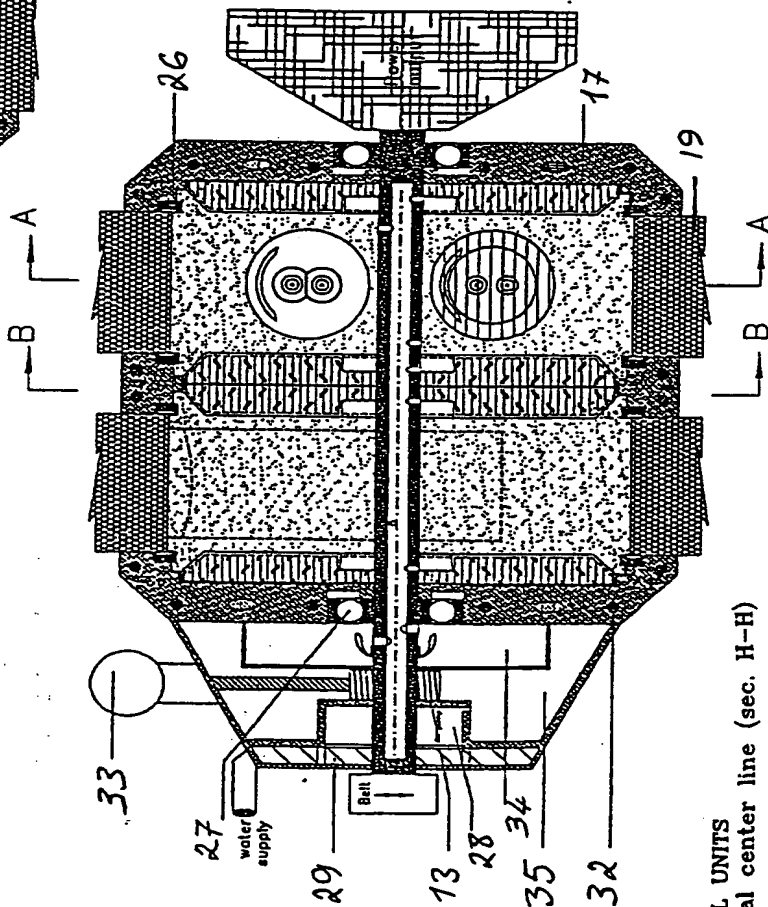
AMENDED SHEET



THREE POWER WHEEL UNITS
Section plan in horizontal center line (sec. H-H)

F-2b

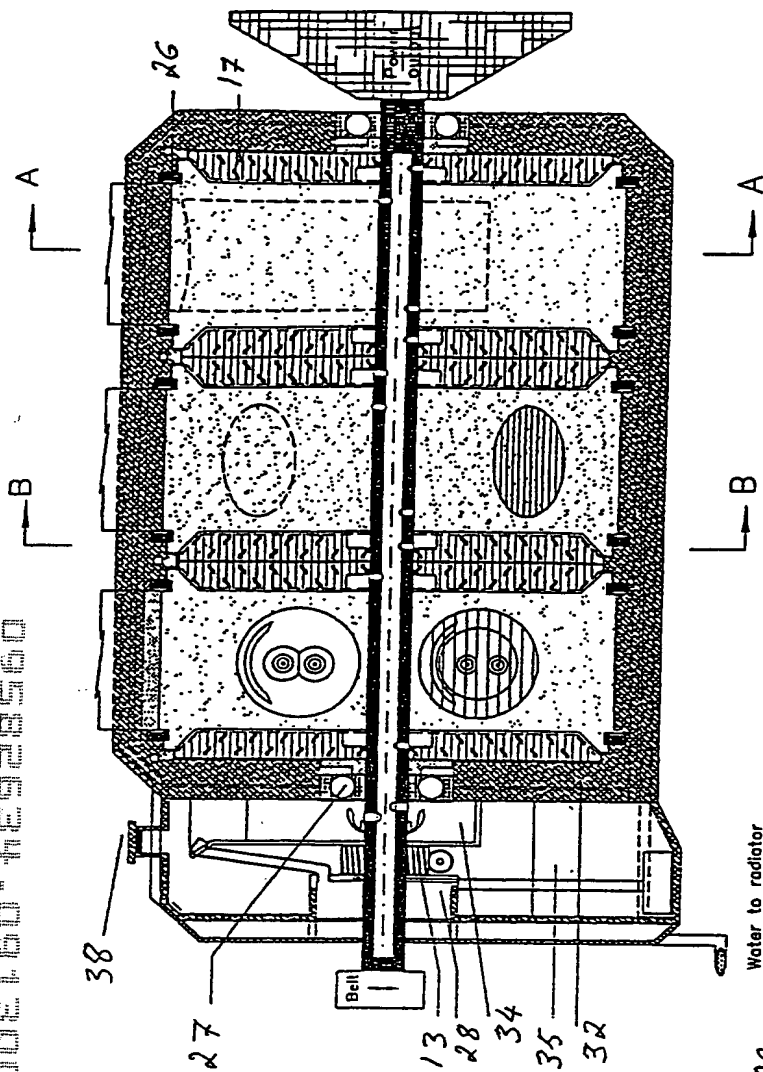
Fig-2



TWO POWER WHEEL UNITS
Section plan in horizontal center line (sec. H-H)

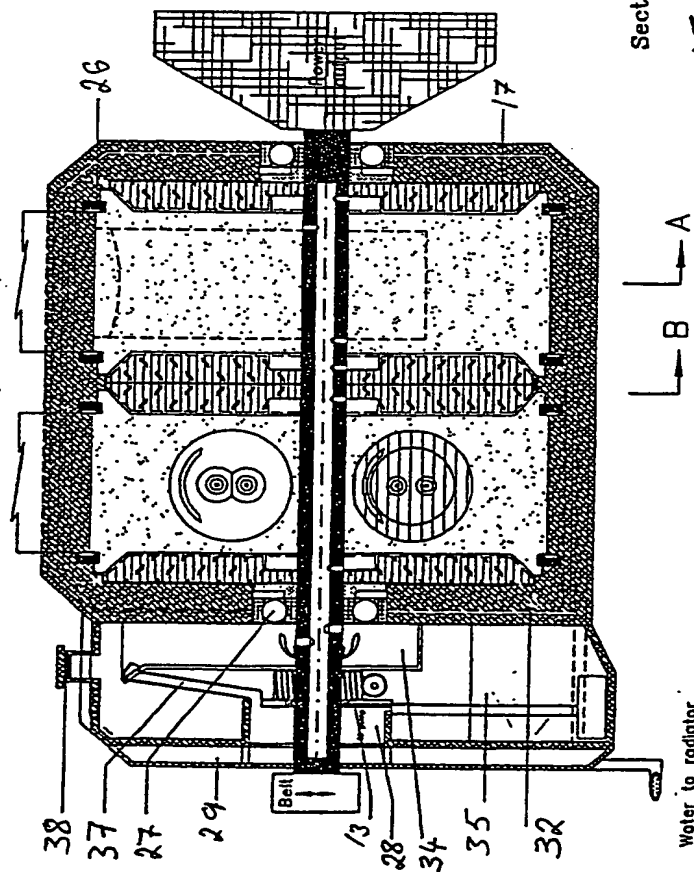
F-2a

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TWO POWER WHEEL UNITS
Section plan at vertical center line (sec. V-V)

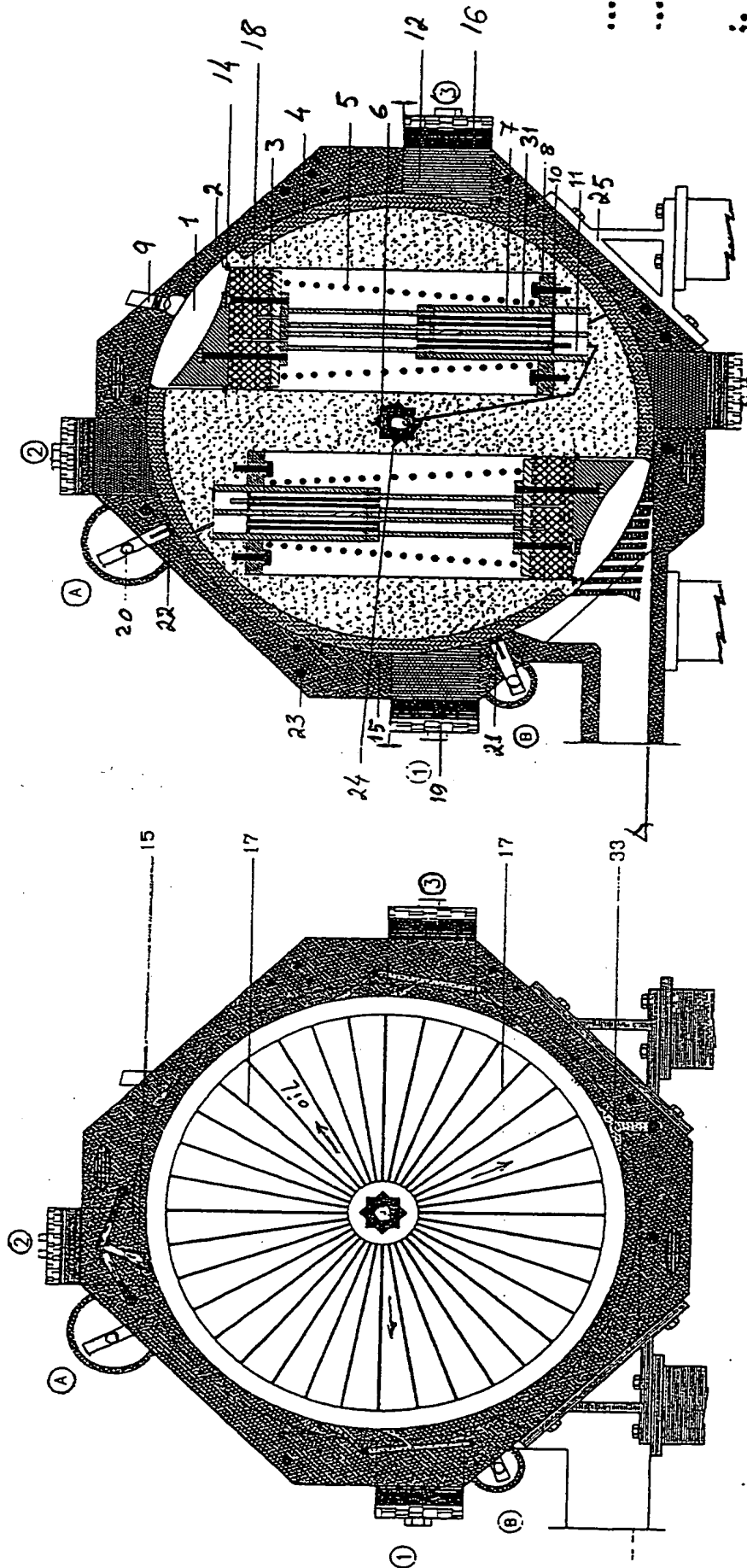
F-3a



THREE POWER WHEEL UNITS
Section plan at vertical center line (sec.V-V)

L-3b

28.09.88



SECTION A - A

F-4a

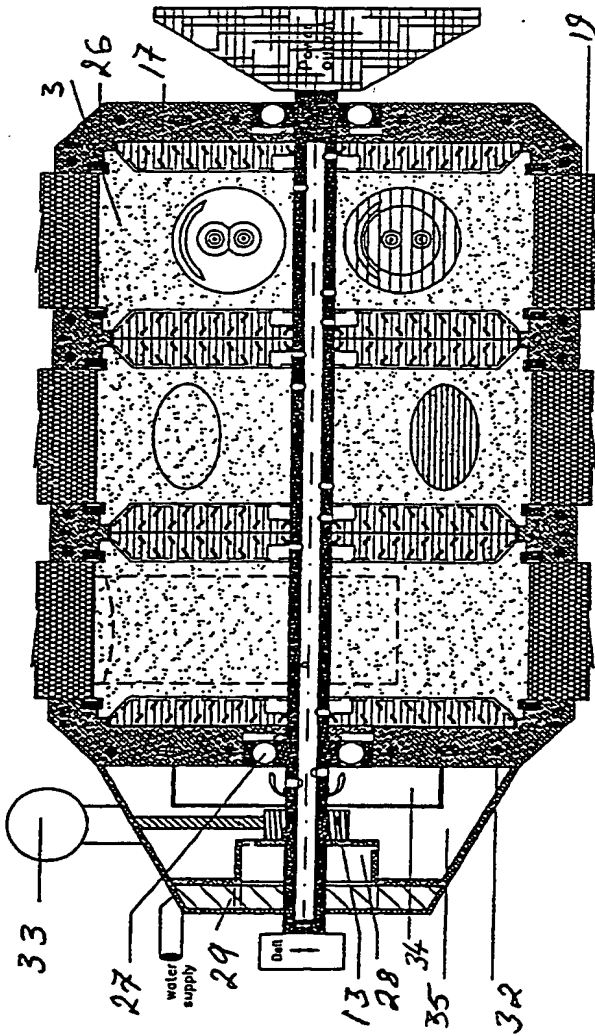
SECTION B - B

F-4b

- Fig-4 -

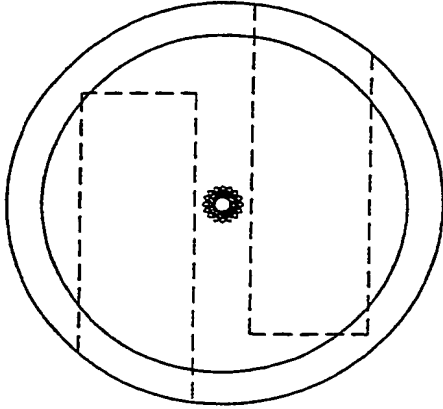
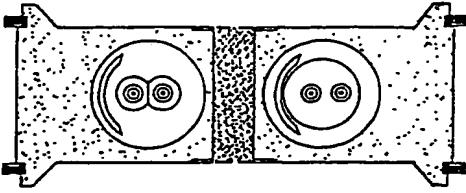
4/75

AMENDED SHEET

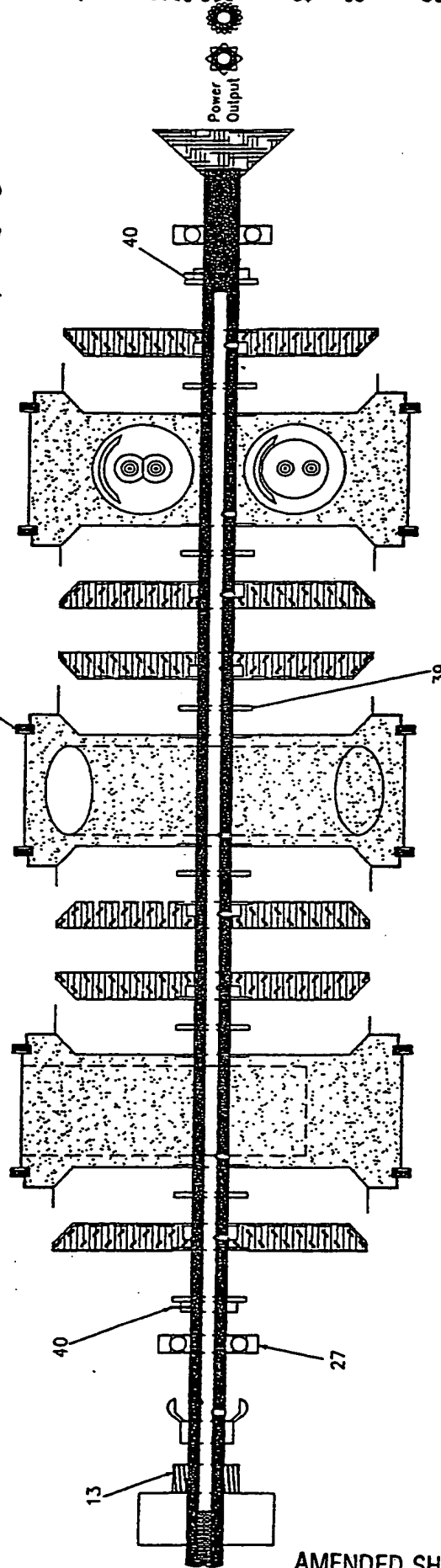


Section - Plan in horizontal C.L.

F-5a



No. 3
F-5b

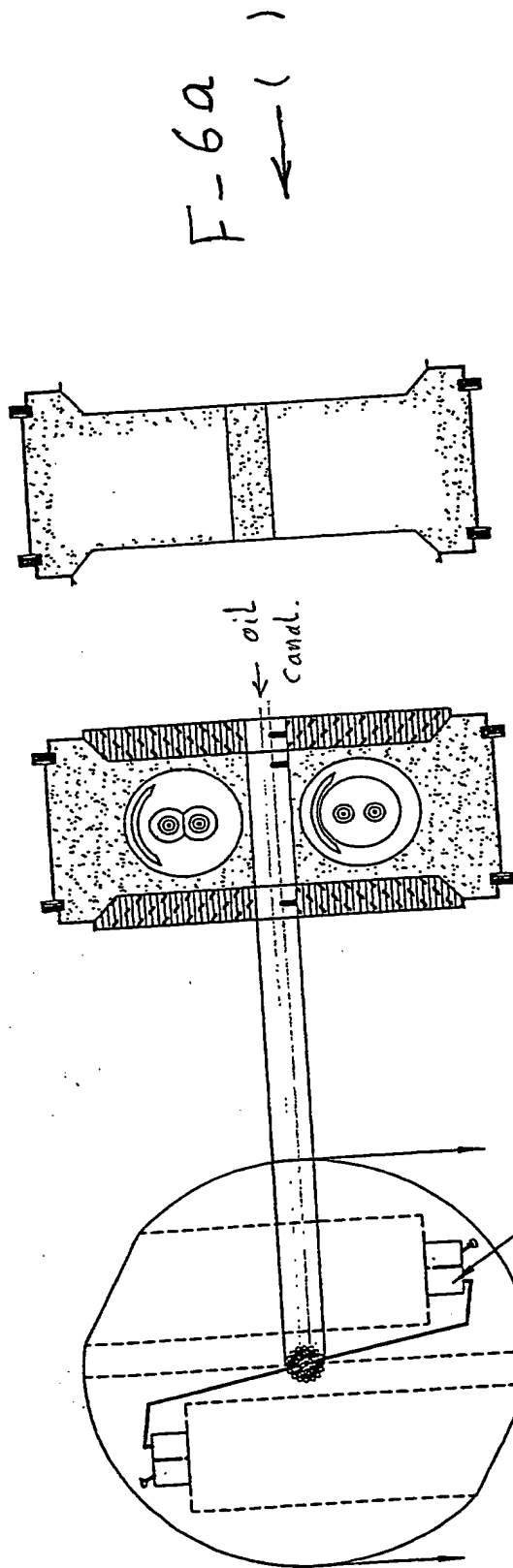


F-5c

ROTATING PARTS ANALYSIS ON THE CRANK

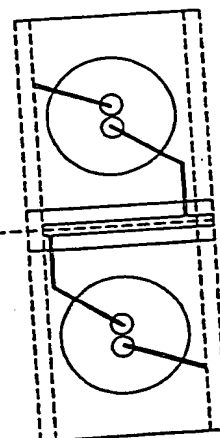
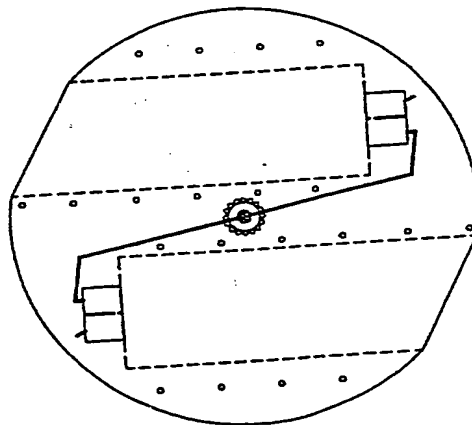
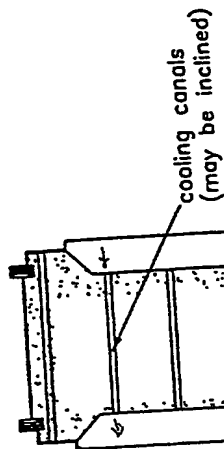
- Fig-5 -

000160 145928560



Oil sump feeder for piston

Power wheel unit



PISTON INLET-OUTLET OIL SYSTEM

Proposal for additional cooling oil holes in the wheel

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F-6b
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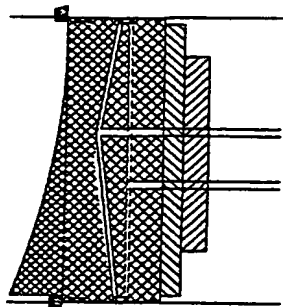
- Fig-6

Fig. 7

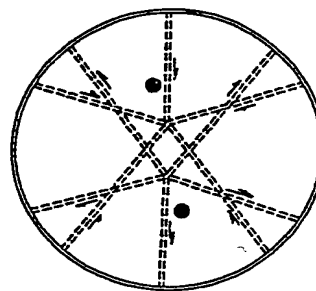
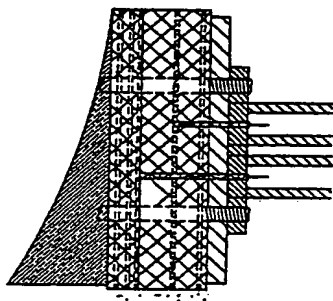
F-Ze

7-19

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$$\begin{matrix} 0 \\ \infty \\ L' \end{matrix}$$

8



86

PISTON OIL CANALS DISTRIBUTION
Scale 1 : 1.5

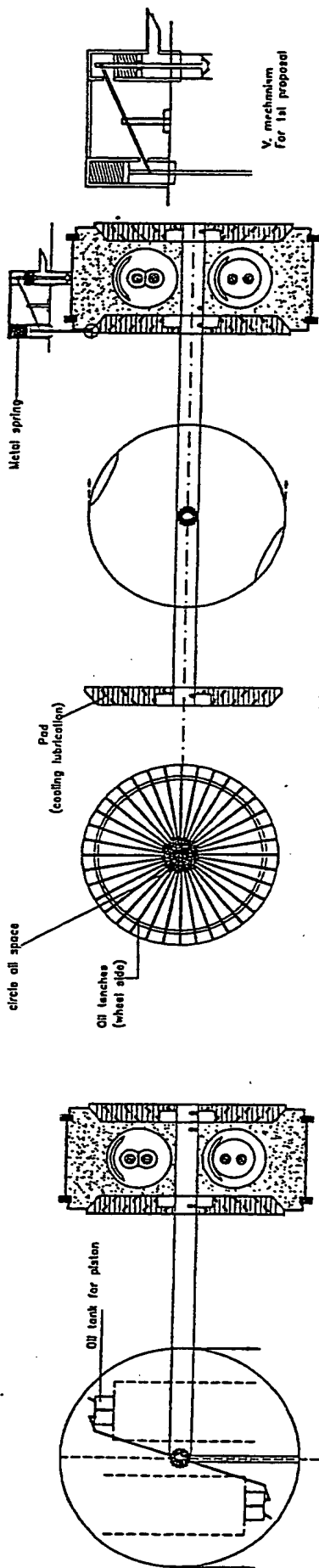


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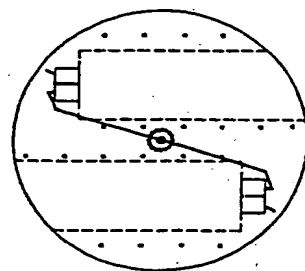
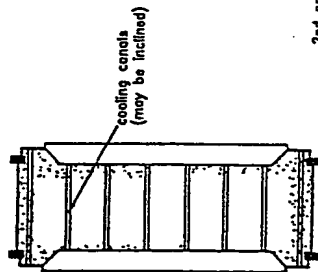
DETAIL 22 11

Li 88



1st proposal of timing system with valve mechanism (lower points pad circular edge)

LUBRICATION COOLING PAD



PISTON INLET OUTLET OIL SYSTEM

F-9a

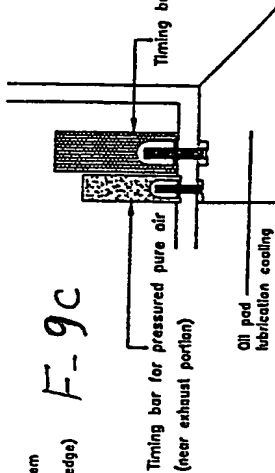
F-9b

2nd proposal of timing system with valve mechanism (higher points pad circular edge)

F-9c

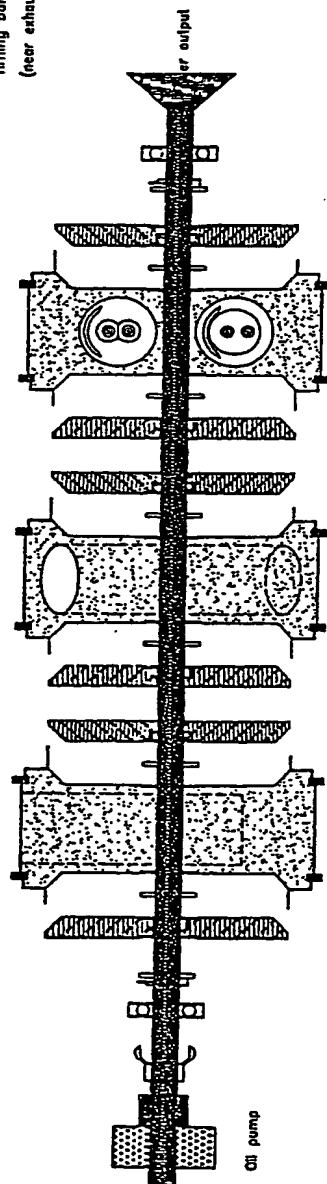
V. mechanism for 2nd proposal

F-9d



(one pad - two valves timing system) (typical performance)

F-9e



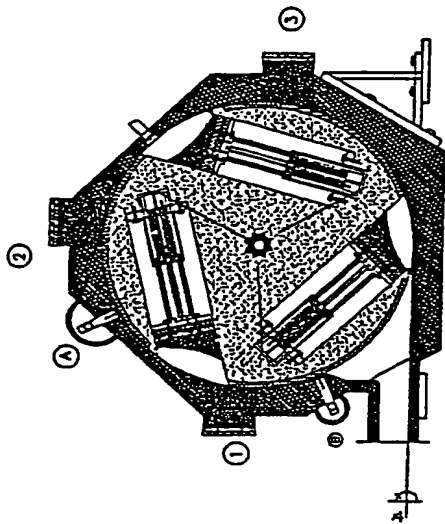
NOTE (Oil inlet hole on shaft as per each part it is not as per scale)

ROTATING PARTS ANALYSIS ON THE CRANK

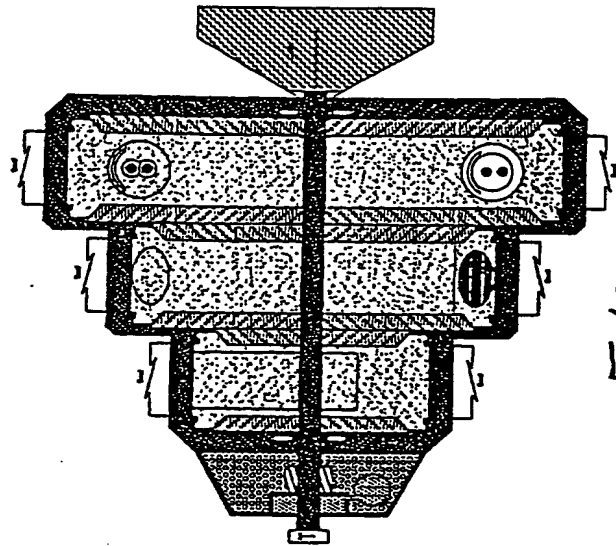
F-9f

Fig-9 =

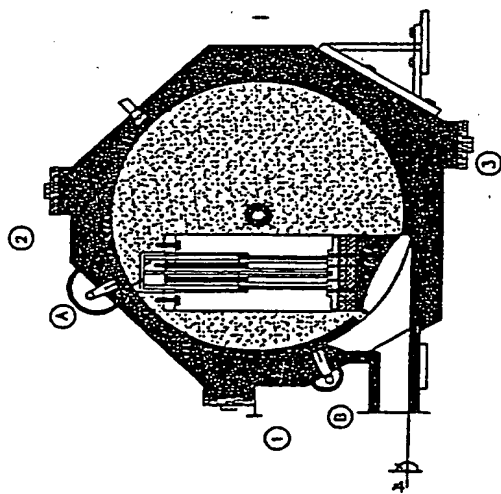
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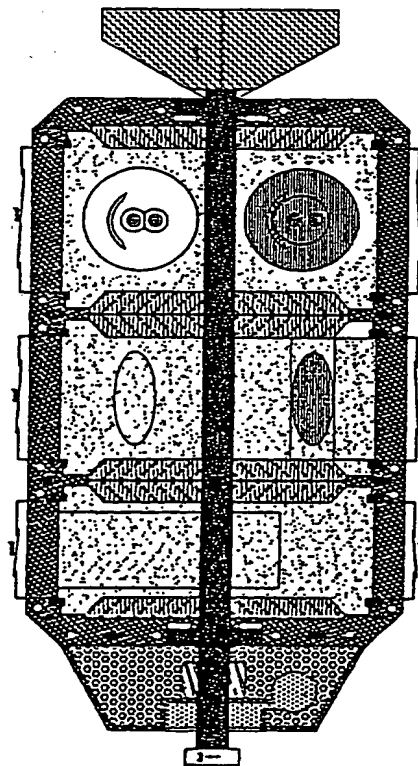
F-136



F-13C



F-13a



F-13d

Fig-13

THE



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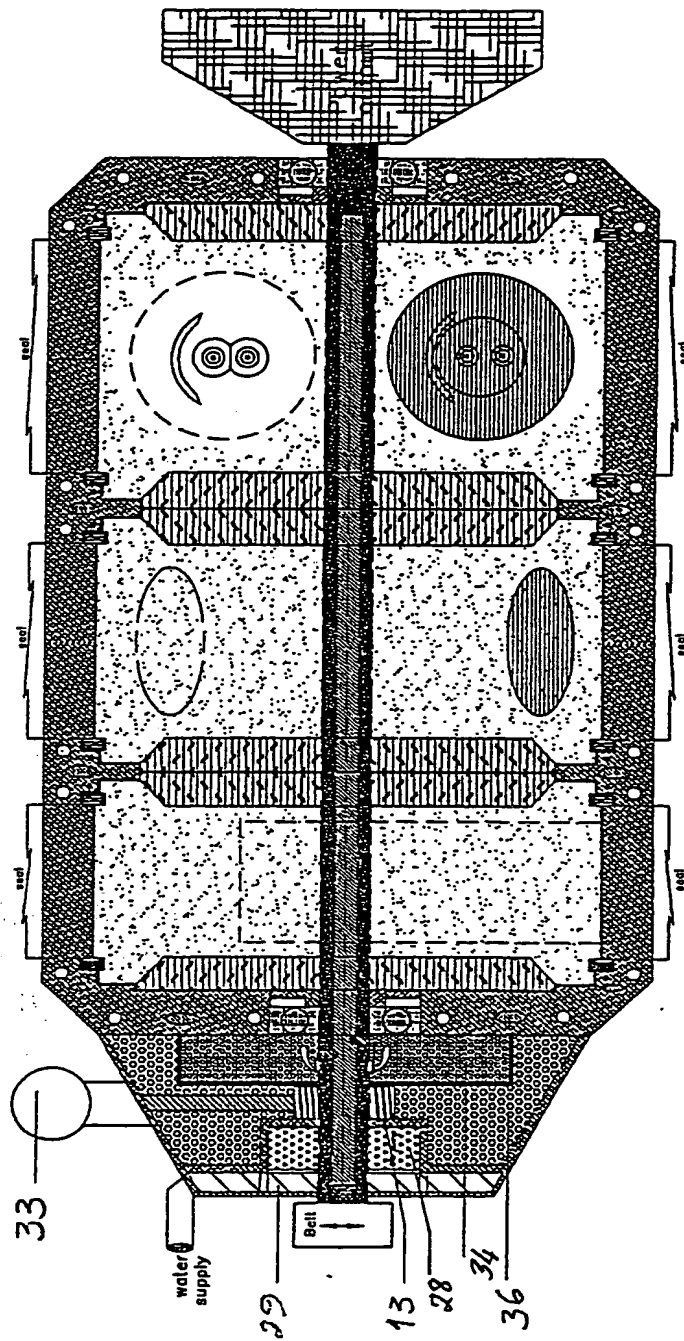


Fig-15

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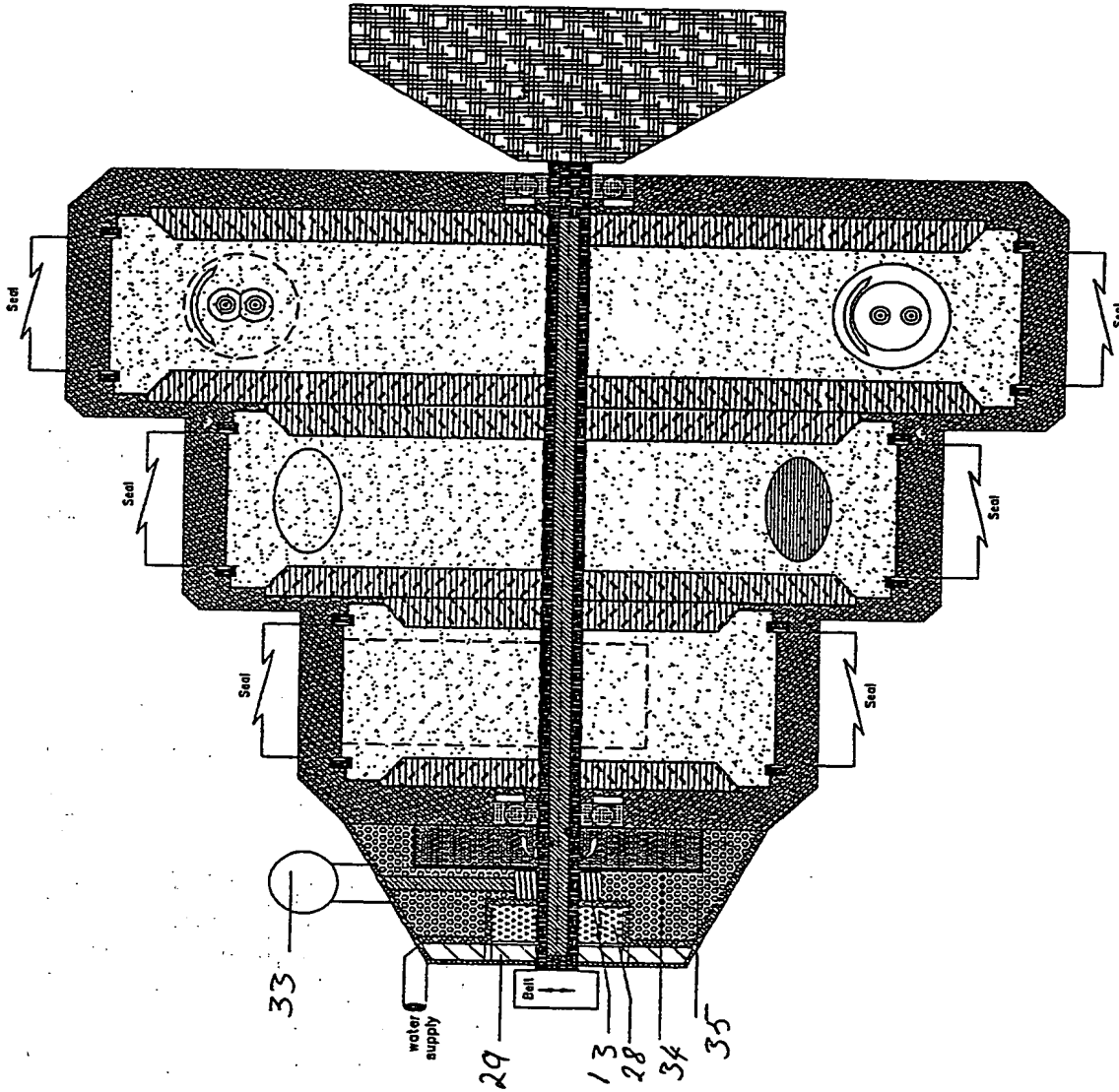


Fig - 16

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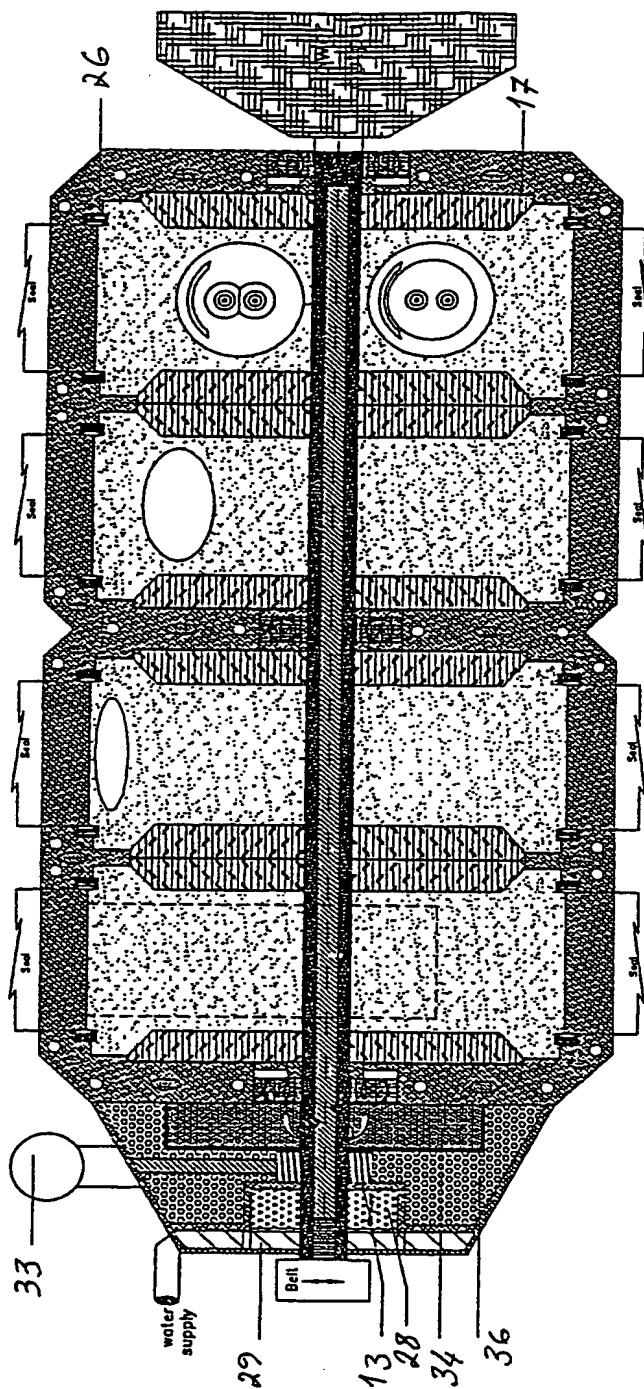
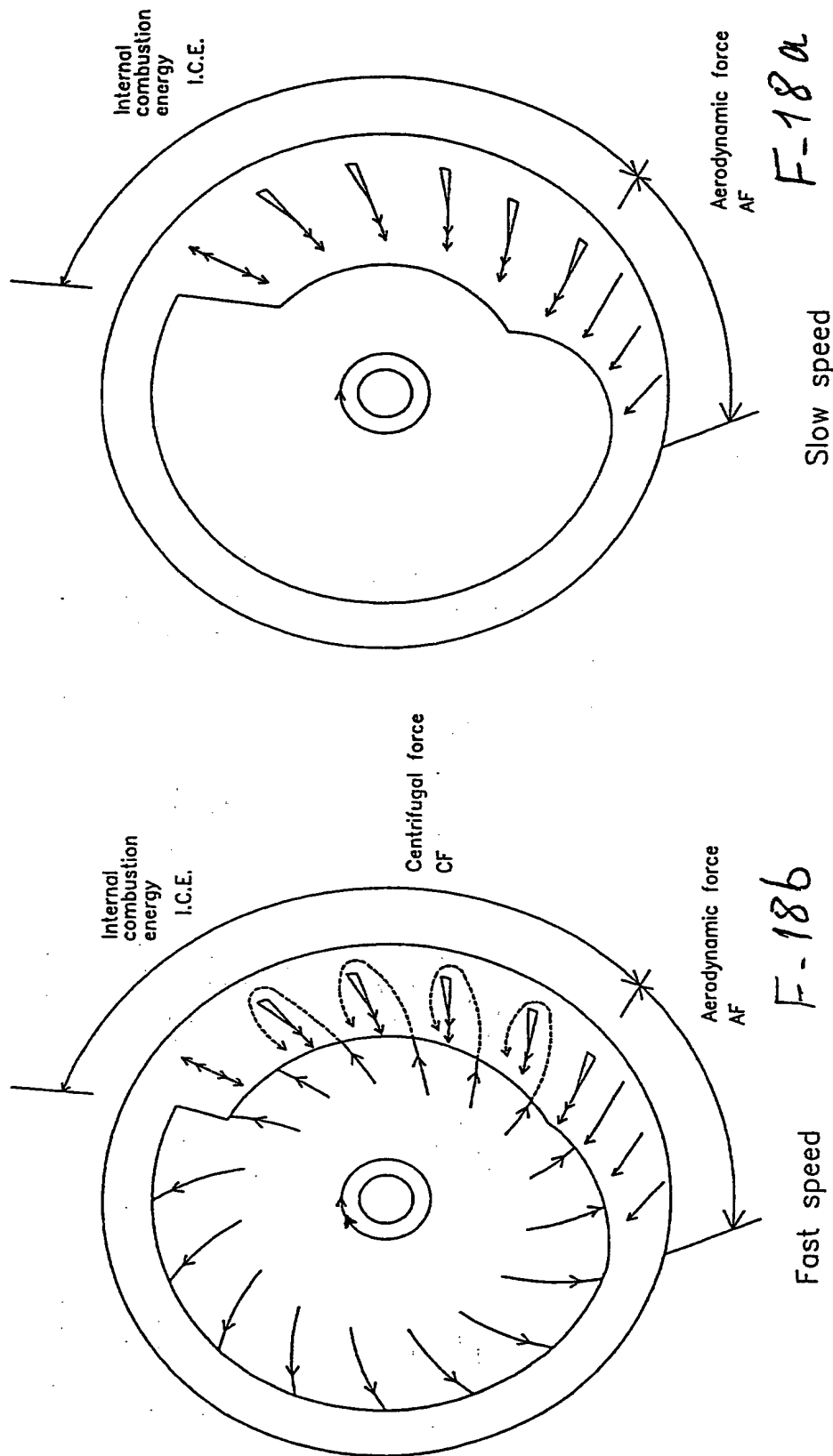


Fig-17

DETAILS OF ENGINE FORCES



$$P = \text{I.C.E.} + \text{A.F.}$$

$$P = \text{I.C.E.} + \text{C.F.} + \text{A.F.}$$

Fig-18

NOTE

Component elements are not in actual scale

N O O O

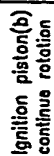
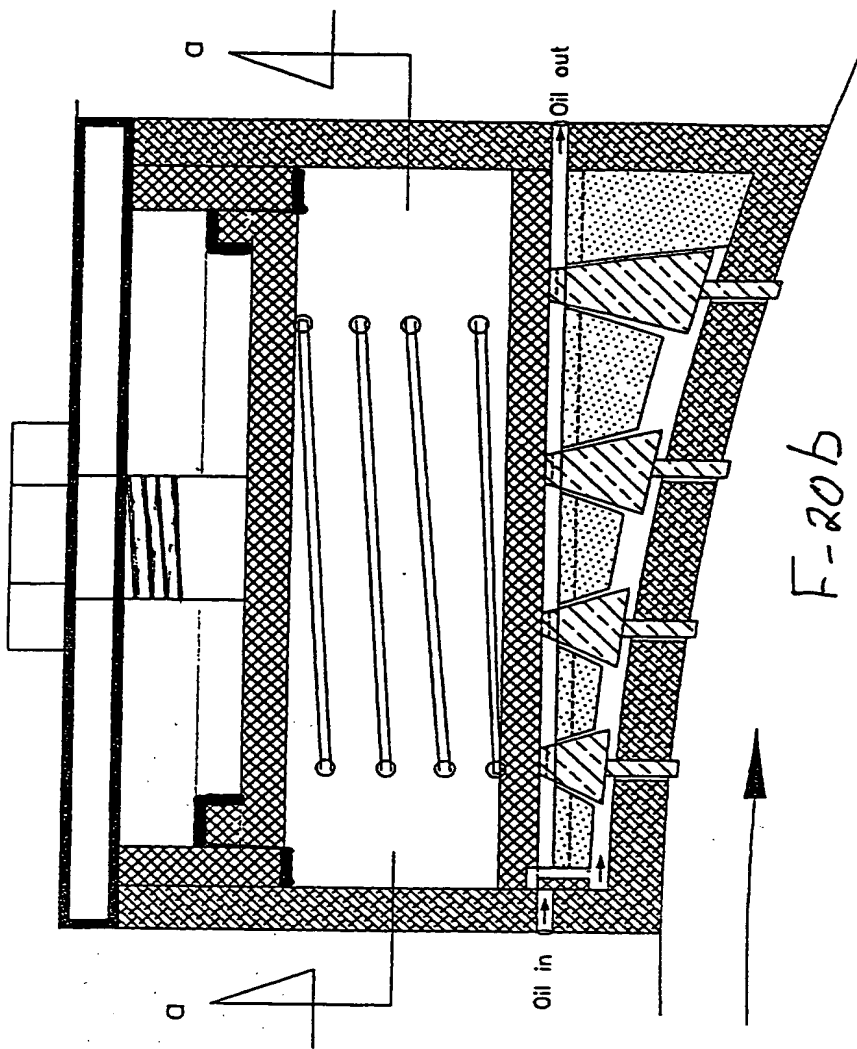


Fig-19

00ET60"4E928560

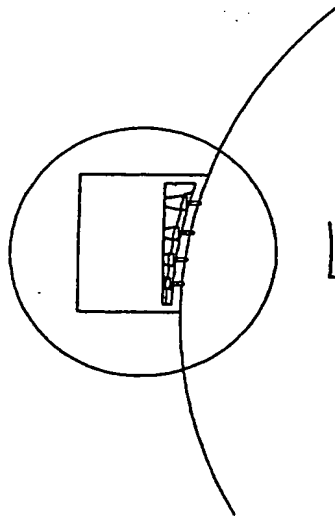
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Proposal for seal mass

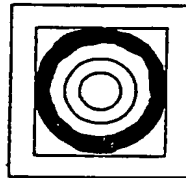


F-20b

Fig-20

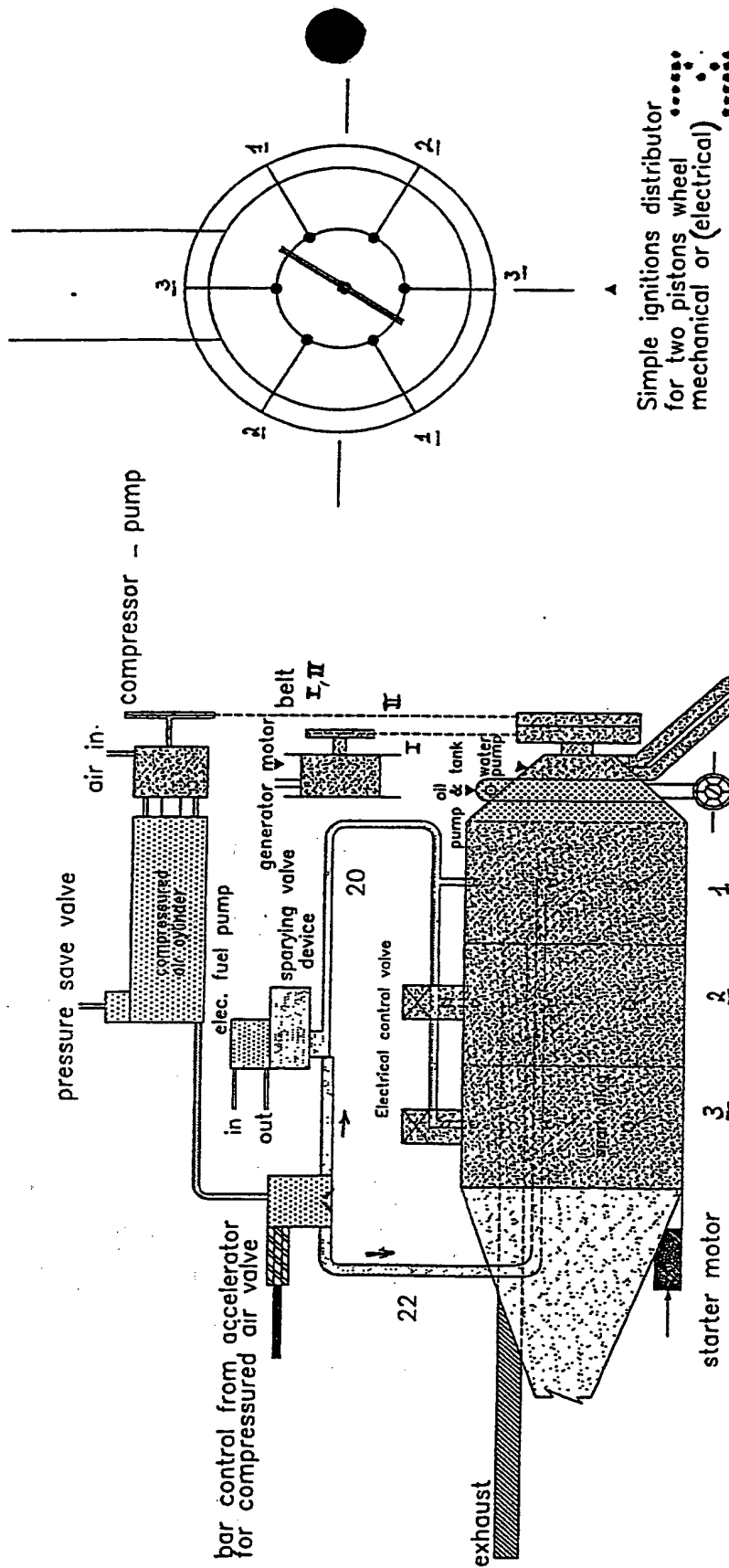


F-20a



Section a - a

F-20c



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Proposal No: 1.
Fuel spray injection for:- all - fuel.air-mix inlet

Fig - 21

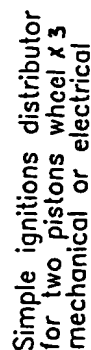
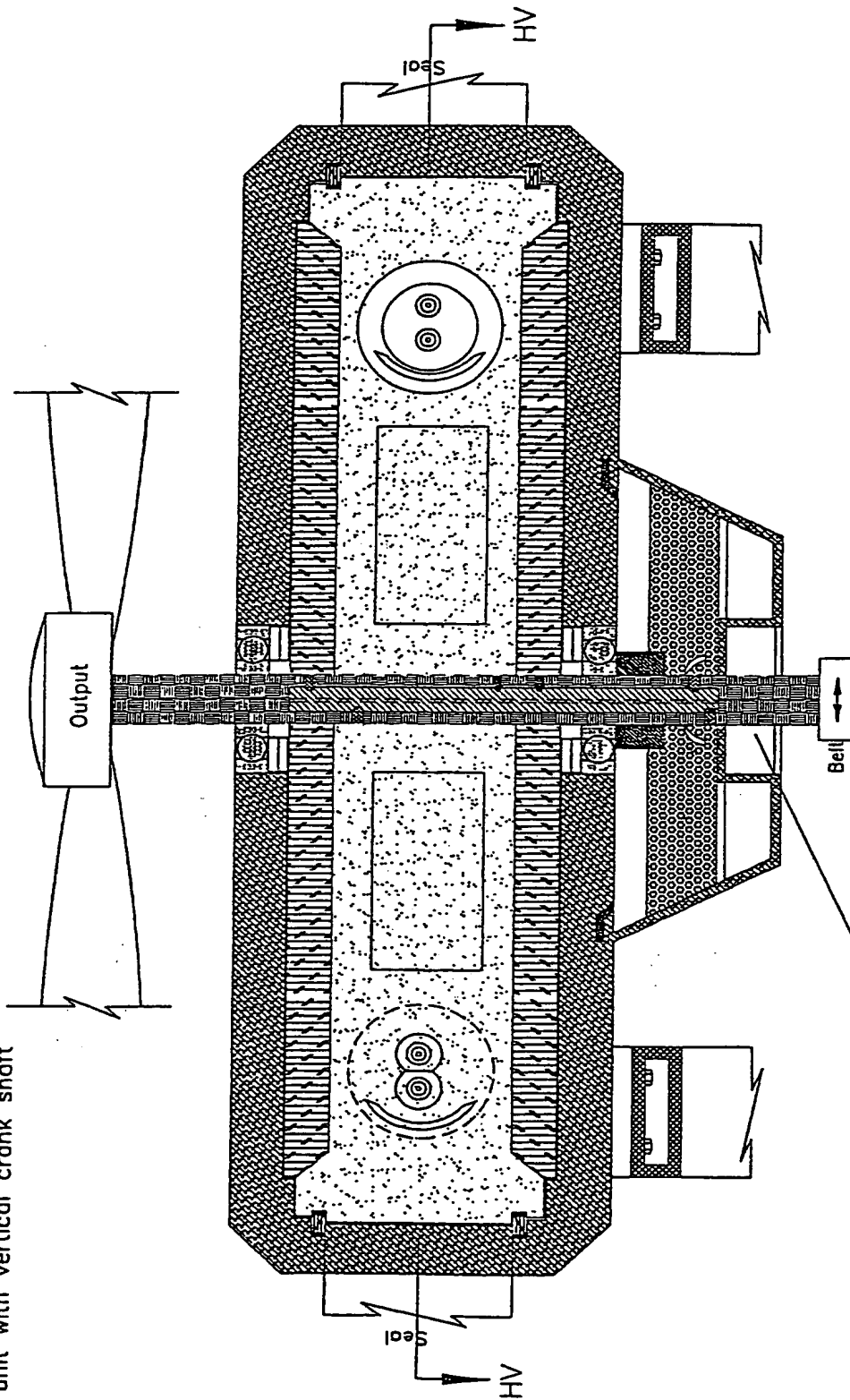


Fig-22

Typical unit with vertical crank shaft



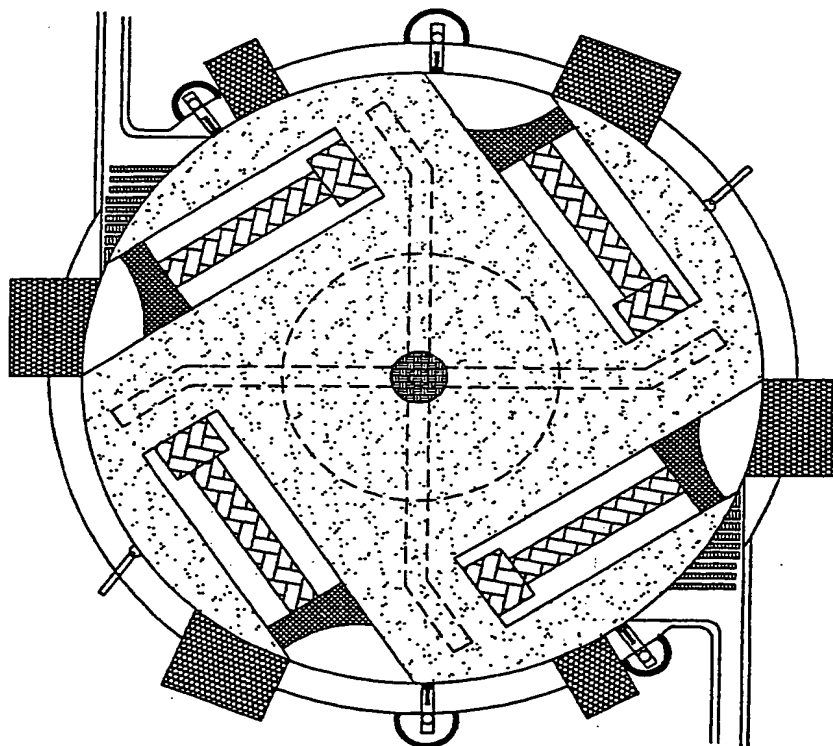
Oil pump not necessary
(Using any oil cooling proposal)

One big power wheel unit
(One big energy unit)

Super Power Wheel Unit
(Dual combustion ignition system or more)
Typical Section in vertical C. L.

Fig-23

Typical unit with four pistons
Using dual ignition system
Section in horizontal C.L.
(for vertical crank shaft)



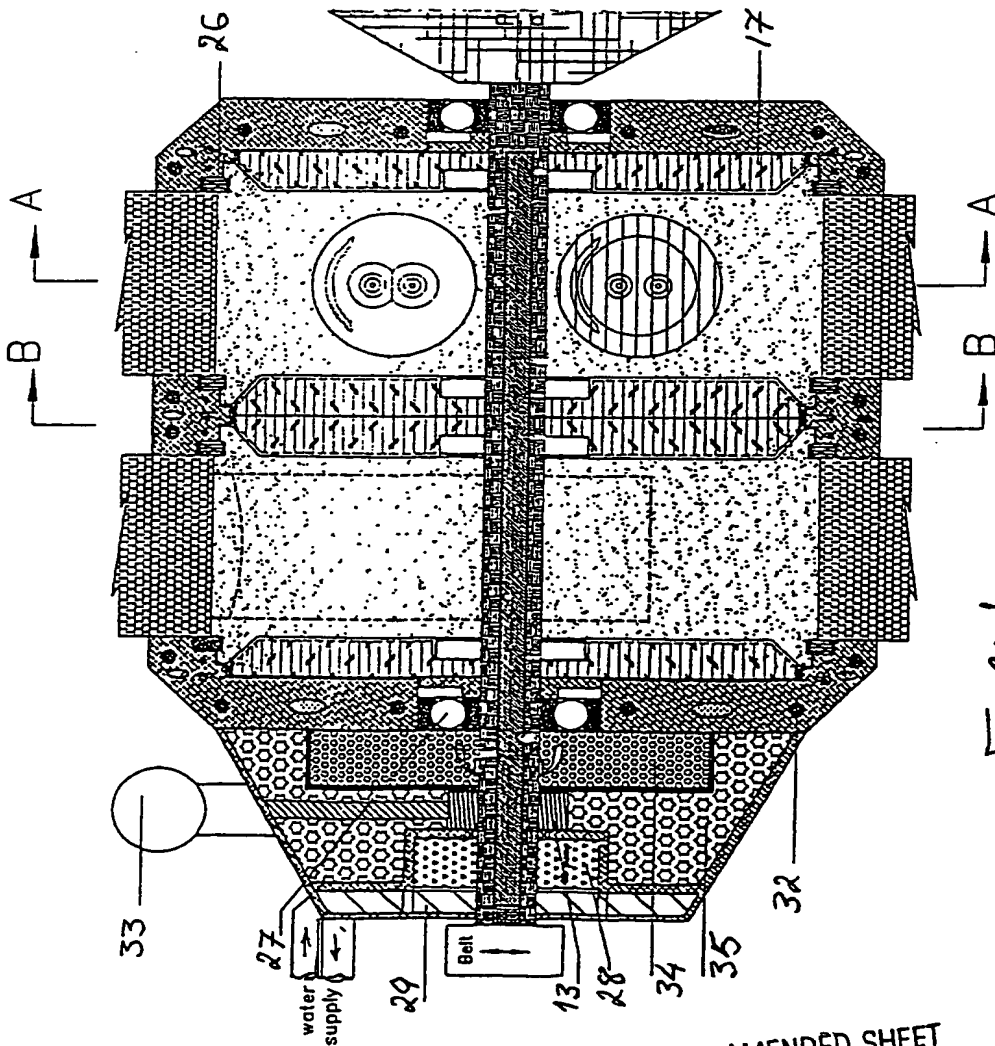
Piston cup curve as specified

section HV – HV
A super Power Wheel Unit
(Dual combustion ignition system)

Fig-24

- 24/25 - AMENDED SHEET

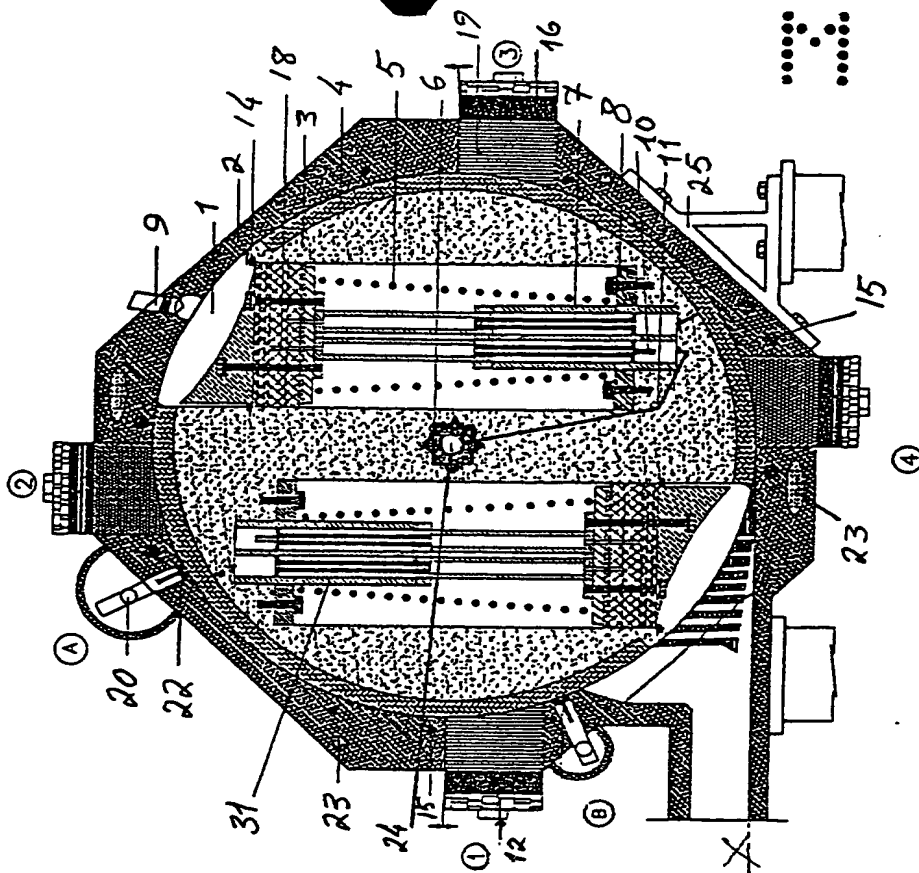
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F-25b

TWO POWER WHEEL UNITS
Section plan at horizontal center line (sec. H-H)

scale:
Auto-cad p.



SECTION A - A

Section plan at vertical c. l. of power wheel.
(A typical spring power modified)

F-25a

Fig-25

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